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By

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Greensborough

Georgia

The rules of the institution make it essentially necessary that a candidate for medical honors shall compose a dissertation on some one subject, or subjects connected with medicine as a test of his abilities.

I have selected for my Inaugural Essay the Malignant fever as it prevailed in the county of Greene and Town of Greenesborough in the Summer and autumn of the year 1822. This fever made its attack principally on children and that early in the spring in the form of cholera infantum, though adults were not entirely exempt.

A grand and principal exciting cause with children was that of teething, to which cause their illness was generally attributed.

The manner in which this disease ushered itself in, was that of frequent vomiting, great irritation of the bowels, and dysentery, every species of diet

when swallowed being rejected, and it is incredible to state the immense quantities of bile vomited, the great irritation of the bowels caused continued restlessness, tossing the extremities, rolling the head from side to side, which last continued throughout the disease and had every appearance of Hydrocephalus. Tongue very much furred, at other times red and parched, breath hot and offensive, frequent and tense pulse, dry skin, hurried respiration, dull eye, though not invariably the case, at times quite a fierce look, stools frequent, very dark or green mixed with blood and mucus.

The treatment of this disease consisted in cleansing the alimentary canal and determining to the surface. The means to be used in effecting this must be evident to every practitioner. I will first commence with the use of Emetics. These were invaluable auxiliaries and promoters of relief

and should never be neglected in this fever as they too often are and that through a mistaken notion of their deleterious effect. Are not their beneficial effects produced on the system too obvious to be overlooked or neglected, for the interposition of inadequate means? They cleanse the Stomach of its crudities, determine to the surface, and leave the system in that condition, favourable for the operation of cathartics, objects, which, when obtained are grand and within themselves important.

They are not only important and necessary in the commencement of the treatment, but they also demanded the attention of the Physician in a more advanced stage (if the little patient was not too much exhausted to admit of their administration) when there was considerable tenesmus and bloody discharges. they frequently acted like a charm in diverting the action of the intestines, when all other attempts failed.

Cathartics

These were important ingredients in that bitter cup, which somuch tends to relieve the system of a burthen it would otherwise sink under. Every person is convinced of the propriety and reason why purgatives are resorted to in fevers, it is not only to aid in reducing excessive action, by detracting a certain fluid through the medium of the exhalents of the prima viæ, but to aid nature in expelling from her offended bowels, their vitiated contents, emerged from the hepatic system and morbid secretion of the intestines. There is no one article in the materia medica so effectual in its action on the liver and bowels in Southern climates as the submuriate of mercury.

All other cathartics when given, if not rejected by vomiting, it is true will purge, but they have not the desired effect, the passages being copious and watery which exhausts the patient, not so with calomel,

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give it in broken doses (say for a child not under ten or twelve months of age) give from one a half to two grains, every two hours until it shall have taken six or eight, if this did not operate sufficiently, we aided its action with mild laxatives, such as Sal. Epsom, Oleum Ricini or Magnesia & Rhubarb.

After the dark, green or bloody discharges changed their colour to that of yellow (which they would do after the daily administration of cathartics) we considered it as an important and favourable omen, the tongue becoming clean and moist, surface soft, countenance and eyes assuming their wonted animation and cheerfulness, the little patient was then as it were snatched from the grasp of death. Though it was often the case after having used our utmost exer= =tions, the disease continued so obstinately intractable from the long continued and violent tenesmus, which at this stage of the malady was confined princi= =pally to the Rectum, that we were compelled to

resort to the use of injections, composed of starch and laudanum. Rubbing the bowels and shine with warm laudanum was also a promoter of relief. Giving it by the mouth had a tendency to disorder the stomach and bowels, by rendering the patient costive and exciting fever. In the treatment of this disease owing to the great irritability of the intestines, regimen demanded our particular and strict attention, for there was much to be effected, by adapting the diet to the different states of the stomach and bowels.
At particular stages of this malady every species of nutriment was rejected, it was pentially necessary this being the case, to make use of some absorbent, lime water or the chalk mixture. Also to apply over the epigastric region, mint leaves steeped in spirits, If those remedies should fail, we must resort to blisters or sinapisms applied over the region of the stomach and between the scapula, as the most certain means of relief to our greatest anxieties and

patients sufferings. After the stomach become quiescent we gave some bland food.

Having gone through the description and treatment of cholera infantum, I shall now commence with the bilious Remittent or Continued fever of this autumn.

Not having the smallest idea of writing my Thesis on the malignant fever which prevailed last year until a short time since, I am not so well prepared to state the exact changes in the weather as I would otherwise have been or as I would wish to be, though, there was no striking peculiarities from that of many other years, the early part of the spring was extremely wet, frequent heavy rains continued to fall throughout April and May. In the month of June the weather was variable and a few cases of bilious fever ocurred. The longest drought we had during the whole

summer prevailed during July, what rain fell was light and partial, we also had the highest temperature during this month that we had throughout the summer. The thermometer in the shade rose as high as 95°. to 96°. We had a considerable change in the temperature of the weather in August, the thermometer sunk unusually low, the wind blowing pretty constantly from the N. E. causing a cool and damp atmosphere, which was very disagreeable particularly in the mornings and evenings, this was succeeded by unusual warm weather, fevers continued to increase throughout this month and September, becoming more malignant as the season advanced. Variable weather, but more humidity and the temperature somewhat lower in October than it was in September, yet continued unusually warm for the season of the year. The whole month of November was extremely mild & temperate.

Causes of Fever

I am convinced that miasmata was the cause of this both in Greensborough and its vicinity. X

The local situation of this village and county generally are conclusive of the fact. The town is very elevated, on the West there is a considerable creek, which runs through very flat and rich land one mile and a half distant, on the East immediately without the precincts there is a brook, great swamp, and vegetable matter, which from the course of nature is consequently compelled to undergo a state of putrefaction, on the South those two streams form a junction.

In the months of September and October, there were considerable fogs, which are within themselves sufficient to convince every person who has the least idea of disease and its causes, of the propriety and correctness of this statement.

The Oconee river and a great number of smaller

smaller streams, on which are erected Mills, are interspersed throughout the county, all of which conspire to the rationality of this conclusion.

Mr Lempriere, in his observations upon the diseases of the British Army in Jamaica, informs us that Kingston is sometimes rendered sickly by exhalations from a lagoon which lies nine miles to the eastward of that town.

In fact the distance to which effluvia can be wafted is not definitely known; it depends upon prevailing winds, but it can generally be carried a much greater distance than is supposed. Some authors mention instances where it has been conveyed in strong currents of air 100-12 miles and even further. The marshes and flat ground to the South, also, probably had some influence in producing this fever.

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Fruit

It is used as an old adage by elderly Physicians and persons, who I have no doubt have paid strict and particular attention to it, that in great fruit years we have great sickness.

I cannot doubt this fact for so soon as the fruit has dropped its bloom, just so soon they commence eating, which often produced violent cholera morbus and placed the system in an apt situation for the reception or least exciting cause to produce disease.

This is the reason why I believe fruit to be a cause. Why is fatigue viewed as a predisposing or exciting cause; why is an immoderate use of spirits or any of the depressing passions, such as fear, grief, anxiety &c.? Because they debilitate the system and leave it in that unguarded state, not able to defend itself against the attack of miasma or any other stimulus or poison.

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Heat

The liver, spleen or both are invariably affected and a morbid secretion of bile induced in bilious fevers owing principally to the stimulating influence of heat. It is true it acts on the system generally, but its effects on the surface are much more evident. Johnson on Tropical climates observes that there is an intimate sympathy or synchronous action, subsisting between the extreme vessels on the surface of the body and those of the vena portarum in the liver; a sympathy, which as far as I am acquainted, has not been noticed by any other; and which, if proved will account for the increased secretion of bile in hot climates, and lead to important practical conclusions.

If we observe those emaciated objects returning from the east and west indies, with indurated livers, sallow complexions, torpid bowels and paucity of biliary secretion; we invariably find the skin

dry, constricted and harsh to the feel, without any thing like the softness and moisture of health, And the same observations may extend to persons living in this State on rivers or near mill ponds, from the sea bord until you approach the mountains.

In diabetes where perspiration is notoriously defective, there is the most decisive diminution in the biliary secretion.

In chlorosis Dr Hamilton observes the perspiration seems to be checked: Sea sickness says Dr Saunders and a sea voyage, contribute very much, to restore the secretion of healthy bile.

The well known effect of these in determining to the surface and promoting perspiration, especially that gentle dapnoe, corresponding with healthy secretion in the liver need not be insisted on.

Dr. Saunders further observes, that inhabitants of warm climates, are extremely subject to diseases

arising from an increased secretion of bile, and the excess of its quantity in the primæ viæ, which either by regurgitation into the stomach produces a general languor of the body together with nausea, foul tongue, loss of appetite and indigestion, or being directed to the intestines, excites a painful diarrhœa, ultimately tending to weaken their tone, and disturb their regular peristaltic motion. p 157.

When from the effect of heat any person or persons, are in a profuse perspiration the application of even the slightest degree of cold is pregnant with danger, It certainly is so and on more accounts than one, for not only is the animal heat too suddenly and rapidly abstracted, but the extreme vessels on the surface and likewise those of the vena portarum are instantly struck torpid the perspiration and biliary secretion are arrested, and a congestion throughout the portal circle is the result.

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All the passions corroborate this doctrine. I shall adduce no more examples, those already advanced afford undeniable proofs of the sympathy in question, This sympathy alone proves the manner in which heat operates in aiding or being one cause of disease.

Exciting causes

A number of the causes already cited are ~~exciting~~ and ~~predisposing~~, I will mention those which most generally kindle the latent spark, Fruit, excessive fatigue, heat, application of cold, a draught of cold water when the system was greatly heated, brought it on in some, excess in the use of spirits &c.

Symptoms

These were so extremely diversified in their features by peculiarity of ~~constitution~~ modes of life &c. that it is very difficult to give even a general outline, without involving apparent contradictions.

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There were however, always some prominent symptoms which sufficiently characterised bilious fever, for every practical purpose, which is the chief object in view. These were gastric irritability, affection of precordia and head; Rarely will all these be absent. The pulse most generally strong, regular and frequent, but not invariably so, the eyes inflamed and animated, pupil contracted, at other times dull and dilated. The patient without much previous notice, was suddenly seized with lassitude, giddiness and chilliness, pains in the extremities, frequently in the hypochondriac and lumbar regions, with sense of debility.

Great warmth over the umbilicus, the bowels were almost always in a state of dysenteric irritation or constipated, no such thing as natural stools in this fever were ever to be seen, unless procured by art. Frequently, but not invariably, yellowness of the eyes and even of the skin took place,

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the mental functions were very generally affected, which indeed is characteristic of all bilious diseases. As this fever advanced, the symptoms often were aggravated, at other times if asked how they were, the reply would be very well and they seemed surprised at the question, perhaps they would not complain of sickness or any local pain, but observed they were very weak and wished something to strengthen them.

I have remarked that when there was much pain and inflammation in any one of the extremities, the disease was very intractable and of long continuance, even if the arterial system and coolness of the surface were indicative of some tonic if administered, the fever would at once be reexcited. This symptom as well as the above mentioned particularly demanded the use of purgatives.

Vomiting of dark or green bilious stuff

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frequently commenced early and continued a most distressing symptom, too often baffling all our attempts to relieve.

In some a purging of vitiated bile occurred perfectly dark and thick, at other times green resembling moss or green leaves bruised.

I presume that the symptoms cited are sufficient for the illustration of this fever.

I shall now commence with the remedies first that of Venesection. Here the practitioner must rely upon his own judgement be governed by existing symptoms, and not by the anticipation of consequent debility from protracted illness. Dr Johnson observes that when we wish to arrest the progress of bilious fever Cito tute et jucunde we should in all cases, where the constitution is not broken down by climate, and particularly where determinations to the brain or liver are conspicuous

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as they too often are, take one copious bleed=
=ing at the commencement (the repetition must
be guided by the judgement of the practitioner)
which will very effectually promote the operation
of all succeeding remedial measures, (and) obviate
in a great degree, those visceral obstructions
and derangements which this fever so frequently
entails on the patient, without which it in
many cases was impossible to get purgatives to
operate. When there was pain in the head
or side, conjunctiva of the eyes inflamed, face
flushed, great dyspnoea, or stricture across
the breast, the use of the lancett was evident,
in order to relieve the engorgement and determination
of blood to particular viscera. All of those
symptoms did not often or invariably make
their appearance in the same patient, but
when any one of them did we were compelled
to detract blood. It was frequently

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necessary when vomiting was a prominent symptom, also when after giving two or three cathartics, without their having the slighest effect, bleeding would relax the surface, that from the intimate connection existing, would relax the structure of the bowels and place the system in an apt situation for their appropriate action. When there was a determination of blood to the intestines, produ=
=ced by some irritating matter, such as acrid bile &c cetera, causing bloody discharges, no one would pretend to deny its utility. The proofs of benefit from venesection, in the bilious fever of all climates having so multiplied that it is needless to insist further on the propriety of this measure.

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Emetics

These were important remedies in the commencement of this fever, before it had assumed its most malignant type, say in the months of June, July and August, after this the stomach was generally in too great a state of irritation to admit of their use.

They cleansed the stomach more thoroughly when deemed prudent to prescribe them, than any other articles. They were mostly inadmis=
=ible in the advanced stage of fever, owing to the approximation of the stomach to appurent inflammation.

Cathartics

These were found to be the most important agents in the cure of this fever, without a perseverance in their use all other attempts were futile. It was the most succesful

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practice after bleeding (if necessary) to administer a large dose of calomel and Jalap or calomel alone and after an interim of four or five hours to aid its operation with Jalap and Crem. Tart. or Castor Oil.

If after giving two or three catharties and they did not have the desired effect of relieving the patient, we gave the antimonial powder, varying the proportions of its ingredients according to the symptoms. Though it was frequently the case the stomach being so extremely irritable, that we could not with any degree of propriety use this powder, owing to the tartar which it contained, we then were compelled to resort to the use of calomel alone and that given in broken doses (say from three to five grains every two hours until the patients had taken forty or fifty or it operated). If this portion did not operate sufficiently active, we generally aided it with mild lascatives, Sulphate of

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magnesia, Oleum Ricini ℥ℹ. If the stomach continued irritable, together with excessive vomiting a grand & important object was to promote a copious catharsis, the less danger to be apprehended, from the return and continuation of this distressing symptom after it was effected. To facilitate and accelerate this most desirable object, purgative enema were resorted to, We tried the saline mixture, but with no good effect. A blister applied over the epigastric region was an invaluable remedy.

As long as the tongue remained furred or red and dry, passages dark, green, brown or like coffee grounds and offensive, the surface dry and harsh to the feel, we continued the use of calomel in broken doses, and purged with it alone until the tongue was cleansed, the passages changed from their dark and unnatural appearance to that of yellow. Whenever this mode of treatment was about to prove unsuccessful,

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we atonce endeavoured to saturate the system with mercury or produce a slight ptyalism, which with a few exceptions was effected by continuing the administration of calomel in small portions, together with the inunction of mercurial ointment.

This grand point being obtained the disease atonce yielded, It is the "Sine qua non" in the medical treatment of this fever as well as others of a bilious character, when not yielding to the foregoing treatment. Tonics are never wanting until the Mercurial action was at end, very frequently not atall. When thought adviseable to use ~~them~~, we employed, Bark, & Colombo combined with virginia snakeroot, hoarhound, in decoction. &c.

I will once more add that I am of opinion in all intermittent or remittent fevers, the liver and spleen are more or less affected, If you would examine children to the age of twelve or fifteen living near creeks or rivers in this State

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from the sea bord as far north as this which is about 32° N. L. you would find them all with enlardement of the Spleen.

This fever was in many instances of the Tertian class; the cold fit lasting from two to six hours, which seemed to threaten the life of the Patient, in several instances I have heard of its proving fatal, By giving equal parts of Laudanum and Antimonial Wine, commencing two hours previous to the accession of the paroxeism, (say two teaspoonfulls at a dose, in a little warm tea and repeated every half hour, until a copious sweat was produced, never failed to stop it and gave sufficient time to purge the bowels. The Tela Araneii was used with great success in an adjoining County. No article of the Materia Medica possessing great medicinal powers, has been more neglected than Cobweb. This has arisen from the

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difficulty in procuring, in part, the article genuine and also from the contradictory statements of respectable practitioners. We are directed to procure that which is the product of the black Spider, in cellars and other dark situations, and that it should be devoid of an adhesive quality. The best test in trying this article is the smell, that which is effectual possessing a peculiar nauseous, and that which is inert having little or no smell. Its operation in certain cases is evidently stimulant, producing a glow of heat over the body, which previous to its administration was cold, in other cases it had no perceptible operation. Prior to its exhibition an emetic or purge should be given. It is difficult to determine with any degree of accuracy the quantity necessary to arrest the progress of an Intermittent, having found five grains as—

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effectual as thirty. It is perhaps best to follow Dr. Jacksons directions, by giving to an adult ten grains, every two hours, commencing six hours previous to the expected paroxysm. Its exhibition during the cold stage is not unfrequently attended by a complete solution of the disease.

It will be found no less useful in the bilious remittent fever, particularly where the remission is considerable and the paroxisms regular in their return, in this case its use should always be preceded by copious purging

Case 1st

J— W— was attacked about the first of July with an intermittent of the quotidian type, it resisted the power of Bark alone, bark and rust of iron combined and sudorifics for six weeks

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when a dose of cob web was administered and effectually prevented the return of fever. Case 2nd

J— S— after having ague and fever for eighteen months, was completely cured by ~~the~~ dose of the above named article. He had taken large quantities of bark and repeated emetics before the accession of the paroxeism, without the least abatement of the disease

I could cite a number of other cases but deem those two sufficient.

Finis